# Analysis of Jeju Island's Cruise Route Networks accompanied by Korea-China's THAAD Dispute

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#### **ABSTRACT**

Jeju Island was once well-known for its cruise industry and for attracting numerous Chinese tourists. In general, Korea's cruise market has enjoyed a significant and rapid growth until the THAAD dispute broke between Korea and China a couple of years ago. As a result of such dispute, Chinese government has placed a ban on tours to Korea and this has started to affect the Korean cruise industry leading to a sharp decrease. Those used to call at Jeju Island were no longer used the routes to come to Korea but diverted its routes to elsewhere such as Japan.

In this study, it is going to analyze Jeju Island's cruise network before and after the THAAD dispute between Korea and China. This shall enable the research to find out the exact problem and market situation of cruise industry in Jeju Island. Once analyzed, this paper will develop strategy and make recommendations to overcome such obstacles.

**Keywords**: Cruise, China, Korea, THAAD, Network

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### 1. Introduction

Cruise ships are not simply a type of transportation for passengers but are a tool that passengers use for a journey to enjoy their leisure on the ships (Marc Mancini, 2004; Hwang et al., 2014). Cruise aims to provide a high level of service with a variety of accommodation, food and dining facilities as well as a various entertainment activities (Lee, 2004). Cruise has the purpose of enjoying marine sightseeing, leisure, visiting various harbors for entertainment and returning to the port of departure (Park, 2010).

The expansion of the Asian cruise market is also affecting the Korean cruise industry. The cruise market has been revitalized by the Asian market, which has been growing rapidly since 2010, and cruises to Korea have started to increase rapidly since 2012. In 2016, more than 2.22 million cruisers, including cruise tourists and crew, visited the country through cruises, and the number of cruise tourists was about 1.65 million, which is a 340% increase from 2013 (Korean Cruise Tourism Information official website, 2017).

Jeju, Busan, and Incheon are major ports for cruise ships in Korea, and Jeju Island is the major port for Northeast Asia. It is especially growing rapidly due to the geographical advantages of Jeju Island, tourism resources, and convenience of shopping. As a result, 64% of the domestic cruise vessels in Korea were concentrated in Jeju Island in 2016, and the total journey was 507 times.

However, this rapid growth is in crisis due to the diplomatic dispute between Korea and China. Due to unofficial measures against the deployment of Korea's THAAD (Terminal High Altitude Area Defense), the number of Chinese tourists who used to come to the country are decreasing which resulted in Jeju Island being financially disadvantaged by such event.

The cruise which used to depart from China stopped its service to Jeju Island as of 15th March 2017 and it was only the Japanese and Worldwide cruise who arrived at Jeju Island until the end of December 2017. Its service to Jeju Island until then was only 20 times and as of September 2018 it was only 13 times of service (Jeju Special Self-governing Province official website, 2018).

As consequences of these, Jeju Island, the Ministry of Maritime Affairs and Fisheries, Busan City, Incheon City, Gangwon Province and Jeollanamdo Island are trying to attract cruise ships to the country. Especially, they are making efforts to increase the cruise services in the East Sea to develop the place like the Mediterranean cruise market in Europe.

The purpose of this study is to compare and analyze Jeju Island's cruise network before and after the THAAD dispute between Korea and China. This will enable the research to find out the exact problem and market situation of cruise industry in Jeju Island. Once analyzed, this paper will develop strategy and make recommendations to overcome such obstacles. In addition, it is necessary to

identify the demand for cruise from the neighbor countries in order to develop the cruise market of Jeju Island in the future.

# 2. Trends of Cruise Market and THAAD Dispute between Korea-China

#### 2.1 Trends of Cruise Market in Jeju Island

Asian cruise market is heavily influenced by China's growing demand. Jeju Island was able to become a major cruise port in the Northeast Asia and all over the world due to the increased number of ships departing from Shanghai and Tianjin in China.

2016 2017 China 47.4% China 67.8% Taiwan Taiwan 7.6% Singapore 7.0% lapan Japan Singapore Hong Kong India 6.0% Hong Kong Malaysia 3.0% South Korea 0.9% Indonesia Malavsia 0.9% Other Asia \* Indonesia 0.8% South Korea Phillipines 0.5% Philippines 1.6% Thailand 0.3% Thailand 1.2% Vietnam 0.1% Vietnam 0.9% Other Asia 0.2%

Figure 1. Market share of departing ports of Asian cruises

Source: Adapted from CLIA, 2017

The cruise market in Asia grew at an average annual rate of 39% between 2012 and 2015. In 2016, its size grew by 23.5% year on year. Almost half (47.4%) of Asian cruises in 2016 departed from China and its percentage increased to 67.8% in 2017. Apart from China, the ports in Taiwan (11%), Singapore (8.8%), and Japan (8.6%) were alternatively preferred in 2016. Its market share changed to Taiwan, Japan and Singapore accordingly in 2017 and this was caused by the change in cruise demand departing from China (CLIA,

2017). It is expected that China will dominate the Asian cruise market in the future.

The cruise market of Jeju Island has continued to increase since 2010, peaking in 2016, just before the outbreak of the THAAD dispute. Between 2012 and 2016, the growth rate doubled every year. In 2016, the number of tourists visiting Jeju Island was nearly 1.2 million and the number of ships arriving increased by more than twice from 285 times in 2015 to 507 times in 2016. In particular, as of 2016, Jeju Island has occupied about 65% of the cruise ships in Korea (Ministry of Culture and Tourism, 2017) and was expected to increase even further (Jeju Island, 2017). However, such growth was never achieved due to the THAAD dispute in 2017. The reaction raised by the Chinese government as a result of the THAAD decreased the demand for cruise ships to Jeju Island by 84.3%.

Table 1. Calls of cruise ships at Jeju Island

Year	No. of calls	No. of ships	Change (%)
2017	98	189,732	-84.3
2016	507	1,209,106	94.3
2015	285	622,068	5.4
2014	242	590,400	52.9
2013	184	386,139	174.8
2012	80	140,496	116.6
2011	69	64,995	17.7
2010	49	55,243	45.6

Sources: Jeju Special Self-Governing Province, 2017

In particular, the number of cruise ships calling at Jeju Island in dropped to one fifth of the 2016 level. The number of visitors dropped from 1.2 million to 190,000. In addition, the number of cruise ships' calls after the THADD on March  $15^{th}$  2017 was only about 20 times.

### 2.2 THAAD Dispute between Korea-China

The Terminal High Altitude Area Defense system (THAAD) is designed to shoot down short, medium and intermediate ballistic missiles. This THAAD deployment in Korea resulted in the diplomatic dispute with China which began in 2016.

Table 2. Schedules of THAAD Disputes between Korea-China

Date		Schedules of THAAD Deployment	Restrictions by Chinese government
2016	Jan 6 <sup>th</sup>	NK, Conducting 4 <sup>th</sup> nuclear test	( A and Kanana and A distriction
	Feb 7 <sup>th</sup>	Korea-US, Agreed deployment of THAAD	<ul> <li>✓ Aug: Korean wave restriction</li> <li>✓ Sep: Excludes subsidies for Korean batteries</li> </ul>
	Feb 17 <sup>th</sup>	China, Requested withdrawal of THAAD deployment	<ul> <li>✓ Oct: 20% reduction of visitors to Korea</li> <li>✓ Nov: Lotte tax investigation, expansion of Korean wave restriction</li> <li>✓ Dec: Restricting chartered plane to</li> </ul>
	July 13 <sup>th</sup>	Korea-US, Officials announced deployment of THAAD	Korea between Jan~Feb 2017
2017	Feb 27 <sup>th</sup>	Lotte, Decided to offer Sungju golf course site	<ul> <li>✓ Jan: Cancellation of cruise ships to Incheon, Busan and Jeju Island</li> <li>✓ Mar: Business suspension of 23 Lotte marts in China</li> </ul>
	Mar 15 <sup>th</sup>	-	✓ Announcement of "Seven Guidelines for the prohibition of travel to South Korea",

Sources: Hyundai Research Institute, 2017

As North Korea conducted the 4<sup>th</sup> nuclear test South Korea decided to deploy the THAAD in July 2016. Since its decision Chinese government banned subsidies for Korean batteries as well as restricting the Korean wave. Furthermore, they decreased the number of Chinese visitors to Korea by 20% in October. They also put pressures on the Korean companies such as Lotte in China by applying sanctions through tax audits and safety checks. This was not the end. The Chinese government cancelled all the cruise ships' operations to Korea (Incheon, Jeju, and Busan) in January 2017 as well as suspending the operations of businesses of Lotte Mart in March. In particular, on March 15, they announced the "Seven Guidelines for the prohibition of travel to South Korea", which resulted in a full ban on the visit to Korea.

As a result, the Jeju Island's cruise market, where Chinese tourists became mainstream, was hit hard. After the prohibition to visit Korea, there was no more Chinese cruise ships calling at any of the Korean ports. It was other nationa's cruise ships that called at Korean ports which was around 20 times in 9 months and 15 days. This was a huge decrease when compared to 507 times of calling in 2016.

This dispute shows well that unofficial sanctions through verbal instructions, rather than official measures, can be devastating.

# 3. Cruise Route Networks of Jeju Island

#### 3.1 Before THAAD Dispute

The Jeju Island's cruise market was mainly dependent on the Chinese market. Having Shanghai and Tianjin as the main ports they grew rapidly every year until 2016. Before the dispute between the two countries, the major routes from Shanghai port were to Jeju Island, via Jeju -Busan or Jeju-Incheon-Japan. When departing from Tianjin port, most routes were to go to Jeju Island, Incheon, Incheon-Jeju, Jeju-Fukuoka, Jeju-Busan-Fukuoka or Jeju-Busan-Nagasaki.

Jeju Island is included in most cruise routes, and it has also recorded the top call in Asia ahead of Singapore (CLIA, 2017).

Table 3. Status of no. of callings and main routes of Jeju Island by consignor in 2016

	Name of ships	Consignor	Main route	No. of callings	No. of passengers
1	Costa Serena	Costa Cruises	Japan-Jeju-Shanghai	83	292,538
2	Chinese Taishan	Bohai Cruise	Japan-Jeju-Qingdao	49	38,356
3	Costa Atlantica	Costa Cruises	Tianjin-Jeju-Japan	59	145,197
4	Skysea Golden Era	Skysea Cruises	Shanghai-Jeju-Japan	58	104,665
5	Seven Seas Voyager	RegentSevenSeas	Shanghai-Jeju-Incheon	2	1,280
6	MarineroftheSeas	Royal Caribbean	Shanghai-Jeju-Japan	38	132,545
7	Queen Elizabeth	Cunard Line	Busan-Jeju-Japan	1	1,829
8	Artania	Phoenix-reisen	Busan-Jeju-Shanghai	1	985
9	Arcadia	P&O Cruises	Xingang-Jeju-Busan	1	1,966
10	Ocean Dream	Peace Boat	Japan-Jeju-Japan	1	915
11	Insignia	Oceania Cruises	Shanghai-Jeju-Tianjin	1	514
12	Crystal Serenity	Crystal Cruises	Incheon-Jeju-Busan	1	963
13	Volendam	Holland America	Tianjin-Jeju-Japan	2	2,621
14	Costa Victoria	Costa Cruises	Shanghai-Jeju-Shanhai	9	15,380
15	Costa Fortuna	Costa Cruises	Shanhai-Jeju-Japan	60	179,522
16	Silver Shadow	Silversea Cruises	Shanghai-Jeju-Tianjin	2	687
17	MSC Lirica	MSC Cruises	Shanghai-Jeju-Japan	41	79,615
18	Legend of the Seas	Royal Caribbean	Japan-Jeju-Tianjin	11	21,018
19	Sapphire Princess	Princess Cruises	Shanhai-Jeju-Japan	47	133,293
20	Golden Princess	Princess Cruises	Japan-Jeju-Tianjin	11	28,398
21	Glory Sea	Diamond Cruise	Shanghai-Jeju-Japan	24	21,259
22	Nippon Maru	Mitsui O.S.K. Lines	Kobe-Jeju-Japan	1	385
	Celebrity Millennium	Celebrity Cruise	Japan-Jeju-Busan	2	3,774
24	Pacific Venus	Venus Cruise	Busan-Jeju-Japan	1	502
25 Asuka Cruise		Asuka II	Hakata-Jeju-Japan	1	899
Total				507	1,209,106

Sources: Jeju Special Self-Governing Province(2017)

China's cruise industry is regarded as a high value-added industry with a potential growth. This is why such market is considered as a major factor for the economic growth for port cities.

In 2012, the State Council of the People's Republic of China appointed Shanghai and Tianjin as the cruise industry base, and continues to support the infrastructure construction. As a result, Tianjin and Shanghai have grown to become the major hub ports for Northeast Asian cruise market and in 2017, about 97% of Korean cruises are based on China as its hub.

Jeju is also highly dependent on China, where cruise ships departing from Shanghai and Tianjin on the Eastern coast of China occupy more than 90% of the Jeju Island cruise. Although some Japanese cruises travelled via Jeju Island, Jeju Island cruise before the THAAD conflict was in fact fully dependent on China.

#### 3.2 After THAAD Dispute

Jeju Island, which once ranked the fourth in the world in 2016, was hit hard by the THAAD dispute since the Chinese cruises stopped its services to Korea. Since March 2017, the Jeju Island cruise network has been limited to Japan and rest of the world except China.

Table 4. Status of no. of callings and main routes of Jeju Island by consignor in 2017

	Name of ships	Consignor	Main route	No. of callings	No. of passengers
1	ASUKA II	ASUKA Cruises	Japan-Korea-Japan	1	660
2	CALEDONIAN SKY	Noble Caledonia	Worldwide	3	303
3	COSTA ATLANTICA	Costa Crociere	China-Korea-China	10	22,555
4	COSTA FORTUNA	Costa Crociere	China-Korea-China	12	31,815
5	COSTA NEOROMANTICA	Costa Crociere	China-Korea-China	3	2,175
6	COSTA SERENA	Costa Crociere	China-Korea-China	10	25,871
7	COSTA VICTORIA	Costa Crociere	China-Korea-China	1	1,322
8	CRYSTAL SYMPHONY	Crystal Cruises	Worldwide	1	867
9	DIAMOND PRINCESS	Princess Cruises	Japan-Korea-Japan	2	3,612
10	EUROPA	Hapag Lloyd Cruises	Worldwide	1	345
11	GLORY SEA	Diamond Cruise	China-Korea-China	12	10,668
12	MILLENIUM	Celebrity Cruises	Worldwide	3	6,246

13	MSC LIRICA	MSC Cruises	China-Korea-China	3	4,944
14	NIPPON MARU	Mitsui O.S.K. Lines	Japan-Korea-Japan	1	436
15	OCEAN DREAM	Maritime Holdings Cruise	Worldwide	1	604
16	SAPPHIRE PRINCESS	Princess Cruises	China-Korea-China	15	44,246
17	SKYSEA GOLDEN ERA	Skysea Cruise Lines	China-Korea-China	17	31,449
18	THE WORLD	ResidenSea	Worldwide	1	195
19	VOLENDAM	Holland America	Worldwide	1	1,419
		Total		98	189,732

Sources: Jeju Special Self-Governing Province(2018)

There are only about 20 cruises calling at Jeju since March 15th of 2017. Jeju Island had a total of 98 arrivals in 2017, but this is because it is the number of cruise ships which arrived between January and March 15<sup>th</sup>. In fact, after the Chinese's government action after the THAAD dispute, it dropped to twice per month compared to 40 times per month back in 2016. This can be seen more visibly from the number of cruise ships calling at Jeju in 2018. By the end of September 2018, Jeju only had 13 callings and the number of passengers was only 12,353. Moreover, the cruise routes were limited to around the world, Japan, and Taiwan.

Table 5. Status of no. of callings and main routes of Jeju Island by consignor in 2018

	Name of ships	Consignor	Main route	No. of callings	No. of passengers
1	AMADEA	AMADEA Cruises	Worldwide	1	551
2	MILLENIUM	CELEBRITY Cruises	Worldwide	2	4,303
3	SILVER DISCOVERER	SILVERSEA EXPEDITIONS	Worldwide	1	107
4	STAR LEGEND	WINDSTAR	Worldwide	1	194
5	COSTA NEOROMANTICA	Costa Crociere	Japan	6	5,314
6	NIPPON MARU	Mitsui O.S.K. Lines	Japan-Korea-Japan	1	404
7	SUPERSTAR AQUARIUS	STAR Cruises	Taiwan-Japan- Korea-Taiwan	1	1,480
	Total		13	12,353	

Sources: Jeju Special Self-Governing Province(2018)

# 4. Effects of THAAD Dispute and Ways for Improvements

#### 4.1 Effects of THAAD Dispute

After the Chinese's government ban on the visit to Korea in 2017, the Chinese cruise ships stopped calling at Jeju Island. Jeju is still being hit by the effects of the THAAD dispute. They targeted to attract 1 million cruise passengers this year but the cruise ships scheduled to call at Jeju is being cancelled. The Chinese cruise ships were scheduled to call at Jeju for 126 times between January and February this year but they were all cancelled.

Those cruises who had Shanghai and Tianjin as the main port changed its route to the Northeast Asia and elsewhere after the tourism ban to Korea in 2017. It is expected that around 92.9% of scheduled international cruises this year are scheduled to call at China, so the cruise ship which will actually arrive in Jeju will be only 32 times this year. In the current situation, it is worried that the

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Figure 2. Changes in the East Asia Cruise Network before and after the THAAD

Source: Adapted from KMI(2017), KCTI(2015)

attractiveness of cruise tourists will not be significantly different from last year. Chinese cruises' main destination is now Japan instead of Jeju.

#### 4.2 Plans for Market Diversification

Currently, Jeju Island's cruise industry has returned to its pre-2010 level. Having Jeju Island's geographical advantage and diverse tourism products, it was once referred to as the best port of call in Northeast Asia and attracted Chinese tourists to Jeju Island. However, such industry has now become to a stage where itself cannot be maintained in an instant due to the diplomatic conflicts between the two countries. Since Jeju Island has been highly dependent on China, it still has difficulties in finding effective alternatives even after the two years of the event. In order to overcome such situation in the short term and try to re-establish Jeju Island as a major cruise port in Asia, they have been trying to attract a variety of cruise ships, but the reality is that the number of cruises called at Jeju only counted 13 times until September 2018.

Therefore, in order to improve the situation of the Jeju Island's cruise industry, it is necessary to depart from the cruise industry centered on China. The diversification of the market is essential. In other words, it is necessary to diversify the cruise networks so that it does not only concentrate on China. The industry should look for the network changes to countries like Japan and Taiwan who are regarded as the main ports in Asia. Currently, the cruise network that travels in Asia is mainly operating on a short-term schedule (4 to 6 days). But, for example, the cruise course calling at Jeju Island could be designed for one week to go to Okinawa, Kagoshima by departing from Taiwan.

Taiwan and Japan are the largest markets in the Asian cruise market except China. They are continuously improving the competitiveness of the industry with government-led initiatives and the market value is also rising.

#### 4.2.1 Taiwan

Taiwan is working on its tourism industry as the country is about to become the second largest source market in the Asian region. Cruise has become the fastest growing leisure travel in Asia, and Asian passengers now account for 14.8% of global market. Having this trend coming, Taiwan is hoping to expand its tourism industry by attracting the passengers to the country. Since 2016, the number of cruise passengers in the country has grown by about 35%. In 2018, over one million cruise guests visited Taiwan, including both homeport and transit operations.

The country is working on the port improvement in order to expand its cruise industry. At the Port of Kaohsiung, the Pier 2-10 area has been revamped and open to the public since December 2018. This was managed as the Taiwan International Ports Corporation (TIPC) looks to diversify and expand beyond its

core business. The former warehouses have been turned into creative venues for leisure and recreation for cruise guests at the waterfront. Furthermore, a new cruise terminal will be open by the beginning of 2020 for mega ships in Kaohsiung which will be able to accommodate the latest Oasis- and Global-class vessels.

As a goal for the future, Taiwan is hoping to develop its fly-cruise operation. The city being one of the main tourist destinations in the island gives such fly-cruise operation become possible. Moreover, the city is located almost at the same distance from both country's main cruise ports.

#### 4.2.2 Japan

Japan is growing in popularity as a cruise destination. By the year of 2020, the country is aiming to attract 5 million cruise passengers per year into the country. They believe this figure will be achieved since the recent growth of Asian cruise market is showing a positive sign. In order to achieve such aim, the Japanese Ministry of Land, Infrastructure, Transport and Tourism's Ports and Harbors Bureau managed to set up a Cruise Promotion Office in 2016. This organization is working to play a key role in promoting Japan's cruise industry. For instance, the organization is developing existing quays at some ports, installing new bollards, fenders and piers which can accommodate larger cruise ships. Such actions allow the Ministry to diversify the country's cruise port offerings which allows them to attract more visitor with less investment.

Japan is also working on the waiting areas for cruise guests and customs, immigration and quarantine (CIQ) facilities. The Ministry decided to implement two schemes to kick-start the development of proper CIQ facilities at Japanese ports. Moreover, the Ministry is also working in close collaboration with the Japan Cruise Port Association (JCPA) in order to help promote the country's cruise sector and lead economic revitalization through ports.

Therefore, it is believed that these markets are suitable for Jeju to consider in diversifying its cruise market that is too concentrated in China.

## 5. Conclusions

In the 1980s, the demand for cruise industry grew steadily in line with an income growth in developed countries as well as an increased leisure time. Although the demand decreased once due to the 9/11 terrorist attack, the Asian market has been pioneering since 2010 and has continued to grow since. In particular, the economic growth in China has led to the rapid growth of the East Asian cruise market, centering on China.

Jeju's cruise market has grown to become an essential port of call for Northeast Asia due to its geographical advantages. Korea's cruise industry still has the industrial structure of the introduction phase, but Jeju Island has grown rapidly to record the first place in Asia and the fourth in the world in 2016. However, due to the THAAD dispute with China, cruise industry was hit hard and it has yet recovered from the impact since 2017. In other words, the biggest problem of Jeju Island cruise industry was that it was too dependent on one country - China. They now should look for the strategic diversification of the market in order to overcome the dependence on China which led cruise market growth. The purpose of this study was to investigate the changes of cruise network in Jeju, changes in relations with China, the effects of the THAAD conflict, and implications for the new cruise networks. In the case of the new route, a continuous linkage with related governments and institutions is required.

This incident was caused by the Chinese government's policy due to the THAAD problem, but it seems that the infrastructure and software uncertainty for growth-oriented industrial competitiveness were rather a big problem in the first place. Therefore, it is necessary to establish a strategy to enhance the competitiveness of the market so that the foundation of the industry can be strengthened.

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